

AMENDMENTS TO THE CLAIMS: This listing of claims replaces all prior versions and listings of claims in the instant patent application.

Listing of claims:

1-80. (Cancelled).

81. (Currently amended) An affinity matrix comprising composition which comprises a duplex of a first oligonucleotide and a second oligonucleotide, wherein:

each of said first and said second oligonucleotides is eight to fifty nucleoside subunits in length;

said first and said second oligonucleotides are ~~not covalently~~ non-covalently linked to each other;

each of said first and said second oligonucleotides have a central portion having at least four consecutive ribofuranosyl residues having phosphodiester linkages, wherein said central portions are base-paired with each other in said duplex; and

at least one of said first and said second oligonucleotides has portions flanking said central portions having chemical modifications which increase their resistance to single-stranded nucleases and increase their affinity for the other oligonucleotide of the duplex.

82-92. (Cancelled).

93. (Currently amended) A composition comprising a duplex of a first oligonucleotide and a second oligonucleotide, wherein:

each of said first and said second oligonucleotide is eight to fifty nucleoside subunits in length;

said first and said second oligonucleotide are ~~not covalently~~ non-covalently linked to each other;

each of said first and said second oligonucleotide has a central portion having at least four consecutive ribofuranosyl residues having phosphodiester linkages, wherein said central portions of each first and second oligonucleotides are base-paired with each other in said duplex;

at least one of said first and said second oligonucleotide has portions flanking said central ~~portions having portion, wherein at least two of said flanking portions have a first chemical~~

~~modifications which increase their~~ modification that increases resistance to single-stranded nucleases and ~~increase their~~ a second chemical modification that increases affinity for the other oligonucleotide of the duplex

~~; and one of said oligonucleotides has the nucleotide sequence of SEQ ID NO: 8.~~

94-105. (Cancelled).

106. (Currently amended) A composition comprising a duplex of a first oligonucleotide and a second oligonucleotide, wherein each of said first and said second oligonucleotides is eight to fifty nucleoside subunits in length, wherein each of said first and said second oligonucleotides ~~have~~ has a central portion having at least four consecutive ribofuranosyl residues having phosphodiester linkages, wherein said central portions are base-paired with each other in said duplex, wherein at least one of said first and said second oligonucleotides has portions flanking said central portions, said portions having one or more chemical modifications ~~which increase their~~ that increases resistance to ~~a single-stranded nucleases~~ nuclease, and wherein one of said oligonucleotides ~~has~~ comprises the nucleotide sequence of SEQ ID NO: 8.

107-175. (Cancelled)

176. (Currently amended) The composition of claim 106 wherein one of said one or more chemical modifications ~~are~~ is a phosphorothioate linkages.

177. (Previously presented) The composition of claim 106 wherein said chemical modifications are 2'-methoxy modifications.

178. (Previously presented) The composition of claim 106 wherein said chemical modifications are 2'-fluoro modifications.

179. (Previously presented) The composition of claim 106 wherein said chemical modifications are 2'-O-methoxyethyl modifications.

180. (Previously presented) The composition of claim 106 wherein one of said first and said second oligonucleotides is twelve to thirty nucleoside subunits in length.

181. (Previously presented) The composition of claim 106 wherein one of said first and said second oligonucleotides is fifteen to twenty-five nucleoside subunits in length.

182. (Currently amended) A composition comprising a duplex of a first oligonucleotide and a second oligonucleotide, wherein:

each of said first and said second oligonucleotides is about 17 to about 20 nucleoside subunits in length;

said first and said second oligonucleotides are ~~not covalently~~ non-covalently linked to each other;

each of said first and said second oligonucleotides comprises a portion with at least four consecutive ribofuranosyl residues, wherein said portions are base-paired with each other in said duplex; and

at least one of said first and said second oligonucleotides comprises one or more chemical modifications that increase its resistance to single-stranded nucleases.

183. (Previously presented) The composition of claim 182 wherein said portions have phosphodiester linkages.

184. (Previously presented) The composition of claim 182 wherein the chemical modifications are 2'-methoxy modifications.

185. (Previously presented) The composition of claim 182 wherein the chemical modifications are 2'-fluoro modifications.

186. (Previously presented) The composition of claim 182 wherein the chemical modifications are 2'-O-methoxyethyl modifications.

187. (Previously presented) The composition of claim 182 wherein the chemical modifications are phosphorothioate linkages.

188. (Previously presented) The composition of claim 182 wherein at least one oligonucleotide further comprises at least one chemical modification that increases its affinity for the other oligonucleotide.

189. (Previously presented) The composition of claim 182 wherein at least one of said first and said second oligonucleotides is 17 nucleoside subunits in length.

190. (Previously presented) The composition of claim 189 wherein each of said first and said second oligonucleotides is 17 nucleoside subunits in length.

191. (Previously presented) The composition of claim 182 wherein at least of one of said first and said second oligonucleotides is 20 nucleoside subunits in length.

192. (Previously presented) The composition of claim 189 wherein each of said first and said second oligonucleotides is 20 nucleoside subunits in length.

193. (Previously presented) The composition of claim 182 which activates a double-stranded RNA nuclease.

194. (Currently amended) A composition comprising a duplex of a first oligonucleotide and a second oligonucleotide, wherein:

each of said first and said second oligonucleotides is independently 15 to 25 nucleoside subunits in length;

said first and said second oligonucleotides are ~~not covalently~~ non-covalently linked to each other;

each of said first and said second oligonucleotides ~~comprise~~ comprises a portion ~~with~~ of at least four consecutive ribofuranosyl residues, wherein said portions are base-paired with each other in said duplex; and

at least one of said first and said second oligonucleotides comprises at least one chemical modification that increases its resistance to single-stranded nucleases or increases its affinity for the other oligonucleotide.

195. (Previously presented) The composition of claim 194 wherein at least one chemical modification is a modified internucleoside linkage, a modified sugar moiety or a modified nucleobase.

196. (Previously presented) The composition of claim 194 wherein at least one chemical modification is a phosphorothioate linkage.

197. (Previously presented) The composition of claim 194 wherein at least one chemical modification is a 2'-substituted sugar modification.

198. (Previously presented) The composition of claim 194 wherein at least one chemical modification is a 2'-alkoxy sugar modification.

199. (Previously presented) The composition of claim 194 wherein at least one chemical modification is a 2'-methoxy modification.

200. (Previously presented) The composition of claim 194 wherein at least one chemical modification is a 2'-fluoro modification.

201. (Previously presented) The composition of claim 194 wherein at least one chemical modification is a 2'-O-methoxyethyl modification.

202. (Previously presented) The composition of claim 194 wherein each of said first and said second oligonucleotides independently comprise at least one chemical modification that increases its resistance to single-stranded nucleases or increases its affinity for the other oligonucleotide.

203. (Previously presented) The composition of claim 194 wherein said first and said second oligonucleotide comprise at least 17 contiguous nucleotides which are 100% complementary to each other.

204. (Currently amended) A composition comprising a duplex of a first oligonucleotide and a second oligonucleotide, wherein:

each of said first and said second oligonucleotides is independently 8 to 50 nucleoside subunits in length;

said first and said second oligonucleotides are ~~not covalently~~ non-covalently linked to each other;

each of said first and said second oligonucleotides comprise a portion with at least four consecutive ribofuranosyl residues, wherein said portions are base-paired with each other in said duplex; and

each of said first and said second oligonucleotides independently comprise at least one chemical modification that increases its resistance to single-stranded nucleases or increases its affinity for the other oligonucleotide.

205. (Previously presented) The composition of claim 204 wherein at least one chemical modification is a modified internucleoside linkage, a modified sugar moiety or a modified nucleobase.

206. (Previously presented) The composition of claim 204 wherein at least one chemical modification is a phosphorothioate linkage.

207. (Previously presented) The composition of claim 204 wherein at least one chemical modification is a 2'-substituted sugar modification.

208. (Previously presented) The composition of claim 204 wherein at least one chemical modification is a 2'-alkoxy sugar modification.

209. (Previously presented) The composition of claim 204 wherein at least one chemical modification is a 2'-methoxy modification.

210. (Previously presented) The composition of claim 204 wherein at least one chemical modification is a 2'-fluoro modification.

211. (Previously presented) The composition of claim 204 wherein at least one chemical modification is a 2'-O-methoxyethyl modification.

212. (Previously presented) The composition of claim 204 wherein at least one of said first and said second oligonucleotides is 12 to 30 nucleoside subunits in length.

213. (Previously presented) The composition of claim 204 wherein at least one of said first and said second oligonucleotides is 15 to 25 nucleoside subunits in length.

214. (Currently amended) A composition comprising a duplex of a first oligonucleotide and a second oligonucleotide, wherein:

each of said first and said second oligonucleotides is independently 8 to 50 nucleoside subunits in length;

said first oligonucleotide is 100% complementary to said second oligonucleotide;

said first and said second oligonucleotides are ~~not-covalently~~ non-covalently linked to each other;

each of said first and said second oligonucleotides comprises a portion with at least four consecutive ribofuranosyl residues, wherein said portions are base-paired with each other in said duplex; and

at least one of said first and said second oligonucleotides comprises at least one chemical modification that increases its resistance to single-stranded nucleases or increases its affinity for the other oligonucleotide.

215. (Previously presented) The composition of claim 214 wherein at least one chemical modification is a modified internucleoside linkage, a modified sugar moiety or a modified nucleobase.

216. (Previously presented) The composition of claim 214 wherein at least one chemical modification is a phosphorothioate linkage.

217. (Previously presented) The composition of claim 214 wherein at least one chemical modification is a 2'-substituted sugar modification.

218. (Previously presented) The composition of claim 214 wherein at least one chemical modification is a 2'-alkoxy sugar modification.

219. (Previously presented) The composition of claim 214 wherein at least one chemical modification is a 2'-methoxy modification.

220. (Previously presented) The composition of claim 214 wherein at least one chemical modification is a 2'-fluoro modification.

221. (Previously presented) The composition of claim 214 wherein at least one chemical modification is a 2'-O-methoxyethyl modification.

222. (Previously presented) The composition of claim 214 wherein at least one of said first and said second oligonucleotides is 12 to 30 nucleoside subunits in length.

223. (Previously presented) The composition of claim 214 wherein at least one of said first and said second oligonucleotides is 15 to 25 nucleoside subunits in length.

224. (Previously presented) The composition of claim 214 wherein each of said first and said second oligonucleotides independently comprises at least one chemical modification

that increases its resistance to single-stranded nucleases or increases its affinity for the other oligonucleotide.

225. (Currently amended) A composition comprising a duplex of a first oligonucleotide and a second oligonucleotide, wherein:

each of said first and said second oligonucleotides is about 17 to about 20 nucleoside subunits in length;

said first and said second oligonucleotides are ~~not covalently~~ non-covalently linked to each other;

each of said first and said second oligonucleotides comprise a portion with at least four consecutive ribofuranosyl residues, wherein said portions are base-paired with each other in said duplex; and

at least one of said first and said second oligonucleotides comprises at least one chemical modification that increases its resistance to single-stranded nucleases or increases its affinity for the other oligonucleotide.

226. (Previously presented) The composition of claim 225 wherein at least one chemical modification is a modified internucleoside linkage, a modified sugar moiety or a modified nucleobase.

227. (Previously presented) The composition of claim 225 wherein at least one chemical modification is a phosphorothioate linkage.

228. (Previously presented) The composition of claim 225 wherein at least one chemical modification is a 2'-substituted sugar modification.

229. (Previously presented) The composition of claim 225 wherein at least one chemical modification is a 2'-alkoxy sugar modification.

230. (Previously presented) The composition of claim 225 wherein at least one chemical modification is a 2'-methoxy modification.

231. (Previously presented) The composition of claim 225 wherein at least one chemical modification is a 2'-fluoro modification.

232. (Previously presented) The composition of claim 225 wherein at least one chemical modification is a 2'-O-methoxyethyl modification.

233. (Previously presented) The composition of claim 225 wherein each of said first and said second oligonucleotides independently comprises at least one chemical modification that increases its resistance to single-stranded nucleases or increases its affinity for the other oligonucleotide.

234. (Currently amended) A composition comprising a duplex of a first oligonucleotide and a second oligonucleotide, wherein:

each of said first and said second oligonucleotides is independently 15 to 25 nucleoside subunits in length;

said first and said second oligonucleotides are ~~not covalently~~ non-covalently linked to each other;

each of said first and said second oligonucleotides comprise a plurality of nucleoside subunits with 2'-hydroxyl pentofuranosyl sugar moieties; and

at least one of said first and said second oligonucleotides comprises at least one chemical modification that increases its resistance to single-stranded nucleases or increases its affinity for the other oligonucleotide.

235. (Previously presented) The composition of claim 234 wherein at least one chemical modification is a modified internucleoside linkage, a modified sugar moiety or a modified nucleobase.

236. (Previously presented) The composition of claim 234 wherein at least one chemical modification is a phosphorothioate linkage.

237. (Previously presented) The composition of claim 234 wherein at least one chemical modification is a 2'-substituted sugar modification.

238. (Previously presented) The composition of claim 234 wherein at least one chemical modification is a 2'-alkoxy sugar modification.

239. (Previously presented) The composition of claim 234 wherein at least one chemical modification is a 2'-methoxy modification.

240. (Previously presented) The composition of claim 234 wherein at least one chemical modification is a 2'-fluoro modification.

241. (Previously presented) The composition of claim 234 wherein at least one chemical modification is a 2'-O-methoxyethyl modification.

242. (Previously presented) The composition of claim 234 wherein each of said first and said second oligonucleotides independently comprise at least one chemical modification that increases its resistance to single-stranded nucleases or increases its affinity for the other oligonucleotide.

243. (Previously presented) The composition of claim 234 wherein said first and said second oligonucleotides comprise at least 17 contiguous nucleotides which are 100% complementary to each other.